

## Abstract of the Disclosure

Rotary shaft axial elongation measuring method and device enable an accurate measuring of a rotary shaft axial elongation regardless of sizes of the elongation. Grooves (10, 12), arranged mutually opposing in a turned V shape along axial direction, are provided in a rotational surface of a rotary shaft (1), axial elongation of which is to be measured. A sensor (14) is arranged opposing the rotational surface of the rotary shaft (1). The sensor (14) generates pulses upon passing of the grooves (10, 12) following rotation of the rotary shaft (1). As a circumferential interval between the grooves (10, 12) differs according to the axial directional position of the rotary shaft (1), if the positions of the grooves (10, 12) at the position of the sensor (14) change due to the axial elongation, interval of the pulses generated by the sensor (14) changes. Thus, by the change in the pulse generation interval, the axial elongation is measured.